Product Change Notification / KSRA-10VTZM377

Date:

13-Jan-2021

Product Category:

Temperature Sensors

PCN Type:

Manufacturing Change

Notification Subject:

CCB 4507 Initial Notice: Qualification of MMT as an additional assembly site for selected products of MCP9844T and MCP98244T device family available in 8L TDFN (2x3x0.8mm) package.

Affected CPNs:

KSRA-10VTZM377_Affected_CPN_01132021.pdf
KSRA-10VTZM377_Affected_CPN_01132021.csv

Notification Text:

PCN Status:
Initial notification

PCN Type: Manufacturing Change

Microchip Parts Affected: Please open one of the icons found in the Affected CPNs section above.

NOTE: For your convenience Microchip includes identical files in two formats (.pdf and .xls).

Description of Change: Qualification of MMT as an additional assembly site for selected products of MCP9844T and MCP98244T device family available in 8L TDFN (2x3x0.8mm) package.

Pre Change:
Assembled at NSEB assembly site and using 8600 die attach using lead frame with lead lock

Post Change:
Assembled at NSEB assembly site using 8600 die attach and using lead frame with lead lock or Assembled at MMT assembly

site using 3280 die attach and using lead frame without lead lock

Pre and Post Change Summary:

	Pre Change	Post Change	
Assembly Site	UTAC Thai Limited LTD (NSEB)	UTAC Thai Limited LTD (NSEB)	Microchip Technology Thailand (Branch) / MMT
Wire material	CuPdAu	CuPdAu	CuPdAu
Die attach material	8600	8600	3280
Molding compound material	G700LTD	G700LTD	G700LTD
Lead frame material	A194	A194	A194
Lead lock	Yes	Yes	No

Impacts to Data Sheet: None

Change Impact: None

Reason for Change: To improve on-time delivery performance by qualifying MMT as an additional assembly site.

Change Implementation Status: In Progress

Estimated Qualification Completion Date: February 2021

Note: Please be advised the qualification completion times may be extended because of unforeseen business conditions however implementation will not occur until after qualification has completed and a final PCN has been issued. The final PCN will include the qualification report and estimated first ship date. Also note that after the estimated first ship date guided in the final PCN customers may receive pre and post change parts.

Time Table Summary:

	January 2021					February 2021				
Workweek	01	02	03	04	05	06	07	08	09	10
Initial PCN Issue Date			X							
Qual Report Availability										X
Final PCN Issue Date										X

Method to Identify Change: Traceability code

Qualification Plan: Please open the attachments included with this PCN labeled as PCN_#_Qual_Plan.

Revision History:January 13, 2021: Issued initial notification.

The change described in this PCN does not alter Microchip's current regulatory compliance regarding the material content of the applicable products.

Attachments:

PCN_KSRA-10VTZM377_Qual_Plan.pdf

Please contact your local Microchip sales office with questions or concerns regarding this notification.

Terms and Conditions:

If you wish to receive Microchip PCNs via email please register for our PCN email service at our PCN home page select register then fill in the required fields. You will find instructions about registering for Microchips PCN email service in the PCN FAQ section.

If you wish to change your PCN profile, including opt out, please go to the PCN home page select login and sign into your myMicrochip account. Select a profile option from the left navigation bar and make the applicable selections.

Affected Catalog Part Numbers (CPN)

MCP98244T-BE/MNY
MCP98244T-BE/MNYAA
MCP98244T-BE/MNYAB
MCP9844T-BE/MNY
MCP9844T-BE/MNYAA
MCP9844T-BE/MNYAB
MCP98244T-BE/MNYAC

QUALIFICATION PLAN SUMMARY

PCN#: KSRA-10VTZM377

Date:
December 10, 2020

Qualification of MMT as an additional assembly site for selected products of MCP9844T and MCP98244T device family available in 8L TDFN (2x3x0.8mm) package.

Purpose: Qualification of MMT as an additional assembly site for selected products of MCP9844T and MCP98244T device family available in 8L TDFN (2x3x0.8mm) package.

Misc.	Assembly site	MMT
	BD Number	BDM-002777
	MP Code (MPC)	LECL1Y5QXB00
	Part Number (CPN)	MCP98244T-BE/MNY
	MSL information	MSL-1@260C
	Assembly Shipping Media (T/R, Tube/Tray)	Tube
	Base Quantity Multiple (BQM)	3300
	Reliability Site	MTAI
	CCB No.	4507
Lead-Frame	Paddle size	83x71
	Material	A194
	DAP Surface Prep	NiPdAu (PPF)
	Treatment	Rough PPF (ME2)
	Process	Etched
	Lead-lock	No
	Part Number	10100853
	Lead Plating	NiPdAu (PPF)
	Strip Size	250x70mm
	Strip Density	1690 units/Strip
Bond Wire	Material	CuPdAu
Die Attach	Part Number	3280
	Conductive	Yes
MC	Part Number	G700LTD
PKG	PKG Type	TDFN
	Pin/Ball Count	8
	PKG width/size	2x3x0.8mm

Test Name	Conditions	Sample Size	Min. Qty of Spares per Lot (should be properly marked)	Qty of Lots	Total Units	Fail Accept Qty	Est. Dur. Days	Special Instructions
Standard Pb-free Solderability	J-STD-002D ; Perform 8 hour steam aging for Matte tin finish and 1 hour steam aging for NiPdAu finish prior to testing. Standard Pb-free: Matte tin/ NiPdAu finish, SAC solder, wetting temp 245°C for both SMD & through hole packages.	22	5	1	27	> 95% lead coverage	5	Standard Pb-free solderability is the requirement. SnPb solderability (backward solderability- SMD reflow soldering) is required for any plating related changes and highly recommended for other package BOM changes.
Backward Solderability	J-STD-002D ;Perform 8 hours steam aging for Matte tin finish and 1 hour steam aging for NiPdAu finish prior to testing. Backward: Matte tin/ NiPdAu finish, SnPb solder, wetting temp 215°C for SMD.	22	5	1	27	> 95% lead coverage	5	
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5	0 fails after TC	5	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5		5	30 bonds from a min. 5 devices.
Physical Dimmensions	Measure per JESD22 B100 and B108	10	0	3	30		5	
External Visual	Mil. Std. 883-2009/2010	All devices prior to submission for qualification testing	0	3	ALL	0	5	
Preconditioning - Required for surface mount devices	+150°C Bake for 24 hours, moisture loading requirements per MSL level + 3X reflow at peak reflow temperature per Jedec-STD-020E for package type; Electrical test pre and post stress at +25°C. MSL-1@260	231	15	3	738	0	15	Spares should be properly identified. 77 parts from each lot to be used for HAST, uHAST, Temp Cycle test.
HAST	+130°C/85% RH for 96 hours Electrical test pre and post stress at +25°C and hot temp.	77	5	3	246	0	10	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
UHAST	+130°C/85% RH for 96 hrs Electrical test pre and post stress at +25°C	77	5	3	246	0	10	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.